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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/806,789	01/22/2002	Amit Antebi	36415	5989
67801 7590 06/19/2007 MARTIN D. MOYNIHAN d/b/a PRTSI, INC. P.O. BOX 16446 ARLINGTON, VA 22215			EXAMINER LE, UYEN CHAU N	
			ART UNIT 2876	PAPER NUMBER
			MAIL DATE 06/19/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

09/806,789

Applicant(s)

ANTEBI ET AL.

Examiner

Uyen-Chau N. Le

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 March 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) See Continuation Sheet is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 139-167, 190, 192-198, 203-205, 277, 278, 280-284, 286-289, 291 and 293-295 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

Continuation of Disposition of Claims: Claims pending in the application are 139-167,190,192-198,203-205,277,278,280-284,286-289,291 and 293-295.

DETAILED ACTION

Prelim. Amdt/Amendment

1. Receipt is acknowledged of the Amendment filed 03/14/2007.

In view of the Applicant's argument with respect to claims 139-167, 190, 192-198, 203-205, 277-278, 280-284, 286-289, 291 and 293-295 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Reggiani (US 5280267 A) and Atsmon et al (US 6607136 B1). This office action is therefore made Non-Final.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

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3. Claims 139-161, 166-167, 280-281, 283-284, and 293-295 are rejected under 35 U.S.C. 102(e) as being anticipated by Atsmon et al (US 6607136 B1).

Re claims 139-161, 166-167, 280-281, 283-284, and 293-295: Atsmon et al discloses a smart card 10 comprising: a memory 30 for storing information; at least one transmitting or receiving antenna [32, 33], suitable for transmitting or receiving acoustic signals; and a low frequency circuit, adapted to handle transmission of information from the memory, or reception of information for storage in the memory, via the antenna on an acoustic carrier, wherein the information is modulated on the acoustic carrier at a frequency of between 5 kHz and 100 kHz (figs. 1 and 3A-3B; col. 8, lines 17-67; col. 9, line 60 through col. 11, line 45); wherein the at least one antenna comprises an individual transmission antenna 33; wherein the at least one antenna comprises an individual reception antenna 32; wherein the at least one antenna comprises a combined antenna 35 for both reception and transmission; wherein the at least one antenna comprises an array antenna; wherein the at least one antenna comprises an acoustic antenna; wherein the at least one antenna comprises an RF antenna; comprising a processor 31 for processing the information; wherein the processor 31 generates a response to an interrogation of the smart card; wherein the memory 30 comprises a long-term memory; wherein the memory 30 comprises a temporary memory for the processor 31; wherein the carrier frequency is less than 80 kHz, wherein the carrier frequency is less than 60 kHz, wherein the carrier frequency is less than 50 kHz, wherein the carrier frequency is less than 40 kHz (col. 9, line 60 through col. 10, line 59); wherein the at least one antenna comprises a piezoelectric antenna (col. 12, lines 49-55 and col. 25, lines 20-53); wherein the smart card implements a two-way communication

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protocol (fig. 3A; col. 11, lines 21+), wherein the protocol comprises an error correction protocol (col. 9, lines 20+).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 139, 154, 162-165, 277-278, 282, 286-289 and 291 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reggiani (US 5280267 A) in view of Atsmon et al. The teachings of Atsmon et al have been discussed above.

Re claims 139, 154, 162-165, 277-278, 282, 286-289 and 291: Reggiani discloses a portable control and command device (i.e., carried by a user) serves as a smart card, comprising: a memory 202 for storing information; at least one transmitting or receiving acoustic antenna 201; and a low frequency circuit, for handling information associated with said antenna and said

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memory, wherein the information is modulated on an acoustic carrier frequency of 130 KHz (fig. 3); a high frequency circuit, for handling information associated with the antenna and the memory, wherein the information is modulated on a carrier frequency higher than 1 MHz (i.e., 300 MHz); wherein the at least one antenna comprises at least one transmission antenna 203 and at least one separate reception antenna 201 (fig. 3; col. 5, line 5 through col. 7, line 6); wherein the high frequency circuit comprises an RF circuit (col. 6, lines 20+).

Reggiani is silent with respect to the information is modulated on the acoustic carrier at a frequency of between 5kHz and 100 kHz.

Atsmon et al teaches an electronic card 10 transmits data to a radio 11 via sound waves 19a in the frequency range 17-20 KHz, 22.5 KHz, or 44.1 KHz (col. 8, lines 43+ and col. 9, line 55 through col. 10, line 10).

It would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to incorporate the teachings of Atsmon et al into the system of Reggiani in order to provide Reggiani with a universal system that has the capability to operate in a low frequency range. Furthermore, such modification would have been an obvious engineering variation, well within the ordinary skill in the art, for intended use (i.e., for utilizing in a short distance to interact with electronic devices such as computer, TV, etc.), and therefore an obvious expedient.

Response to Arguments

7. Applicant's arguments with respect to claims 139-167, 190, 192-198, 203-205, 277-278, 280-284, 286-289, 291 and 293-295 have been considered but are moot in view of the new ground(s) of rejection.

Newly cited references to Reggiani and Atsmon et al have been used in the new grounds of rejection to further meet the limitation of the claimed invention.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The patents to Ogawa (US 5423073 A) and Suzuki (JP 62060076 A) are cited as of interest and illustrate a similar structure to a CARD FOR INTERACTION WITH A COMPUTER.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Uyen-Chau N. Le whose telephone number is 571-272-2397. The examiner can normally be reached on M-F 7:00AM-3:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Lee can be reached on 571-272-2398. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

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applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Uyen-Chau N. Le
Primary Examiner
Art Unit 2876

June 8, 2007